

ABSTRACT OF DISCLOSURE

A method and apparatus to determine whether a circular queue having N slots is empty or full. A first queue element is dequeued from a current dequeue slot ("CDS") of the N slots designated by a CDS pointer. The CDS pointer is incremented to designate a new CDS. It is determined whether the circular queue is empty after the incrementing via executing a check comparing relative positions within the circular queue designated by the CDS pointer and a last enqueue slot ("LES") pointer. It is determined whether the circular queue is full after setting the LES pointer to designate a new enqueue slot of the circular queue into which a second queue element may be enqueued via re-executing the check.